

Find the Slope, m , between two points, $(x_1, y_1)(x_2, y_2)$

An ordered Pair is (x, y) (x —coordinate, y —coordinate)

Process: Find the Slope, m .	Explanation
$(1, -3)(5, 4)$	Use the Slope Formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$ for points $(x_1, y_1)(x_2, y_2)$
$Point1(1, -3)$ $Point2(5, 4)$	Label your points #1 & #2
$m = \frac{4 - (-3)}{5 - 1}$	Substitute the x-coordinate & y-coordinate into the slope formula.
$m = \frac{4 + 3}{5 - 1} = \frac{7}{4}$	Simplify -Remember " <i>minus a negative</i> " is changed to addition of a positive.
$m = \frac{7}{4}$, the line has positive slope.	Rewrite as $m =$, write the line has positive slope.

Alternate Method (Circle the y-coordinates)

Process: Find the Slope, m .	Explanation
$(1, -3)(5, 4)$	Use the Slope Formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$ for points $(x_1, y_1)(x_2, y_2)$
$(1, -3) Pt2$ $(5, 4) Pt1$	Align the points vertically & Label the first, point#2 and the second, point#1
$(1, \boxed{-3}) Pt2$ $\frac{-3 - 4}{1 - 5}$ $(5, \boxed{4}) Pt1$	Circle the y-coordinates only and write the subtraction $\underline{y_2 - y_1}$
$(1, \boxed{-3}) Pt2$ $\frac{-3 - 4}{1 - 5}$ $(5, \boxed{4}) Pt1$	Now write the bottom subtraction $x_2 - x_1$ from the x-coordinates .
$m = \frac{4 - (-3)}{5 - 1}$	Write $m =$ in front of the ratio (or fraction)
$m = \frac{4 + 3}{5 - 1} = \frac{7}{4}$	Simplify -Remember " <i>minus a negative</i> " means addition.
$m = \frac{7}{4}$, the line has positive slope.	Rewrite as $m =$, write the line has positive slope.